Houston Health

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Grants allow HDHHS to augment services

The Houston Department of Health and Human Services (HDHHS) partners with many agencies, organizations and community groups to better respond to the public health needs of the city. The collaborations result in progress that the department could not accomplish by itself.

Likewise, grants represent a useful tool in the pursuit of making possible the highest state of health for the greatest number of Houstonians. The grants enable HDHHS to carry out many activities that it could not take upon by itself – everything from surveillance of health issues, problems and diseases to health care services furnished by no other local organization.

Grant funds currently total about $48 million. The success in securing this amount is due in part to the department's track record of working to solve public health problems.

The Centers for Disease Control and Prevention and the Texas Department of Health supply a majority of the grants received by the department. Other agencies that frequently issue grants to HDHHS include the U.S. Department of Housing and Urban Development, the Texas Department of Aging and the Texas Commission on Environmental Quality.

This issue of *Houston Health* features a few of the programs that these grants make possible.

Houston benefits from the numerous public health services funded by grants awarded to the Houston Department of Health and Human Services. A new grant received by the department will help renovate about 300 homes confirmed as the source of lead poisoning in low-income children (left). Another grant will fund a project tracking environmental pollutants such as drinking water contaminants and exposures that lead to chronic diseases (right).

Linking pollution to diseases
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A haze blankets the Houston skyline in the archive photo above. Houston is one of a handful of U.S. cities that consistently record the most number of days surpassing federal health standards for ground level-ozone.

The Missing Link

HDHHS will play a part in a nationwide effort to find the link between environmental pollutants and chronic diseases – the leading cause of death in the United States.

The Houston Department of Health and Human Services (HDHHS) is one of only two city health departments in the country awarded a grant to track environmental hazards and exposures that lead to chronic diseases such as asthma, birth defects, developmental disabilities, cancers and neurological disorders like Alzheimer's and Parkinson's.

The department will receive $298,000 for the three-year project as part of the Centers for Disease Control and Prevention's plan to create a national environmental public health tracking network. As a first step toward development of the network, the CDC awarded grants of various amounts to 18 state and two city health departments – New York City and Houston – and three schools of public health.

The grant will make it possible for HDHHS to collect, integrate, analyze and interpret data about persistent organic pollutants like PCBs (polychlorinated biphenyls) and dioxin, heavy metals such as mercury and lead, pesticides, air contaminants like toluene and fine particulates and drinking water contaminants. The project will identify what and where the environmental hazards are in Houston and whether people are at risk from exposure.

While overt poisoning from pollutants has long been recognized, the most basic – but critical – knowledge is missing when it comes health effects resulting from exposure to environmental hazards. *What toxins trigger chronic diseases? Whom do they afflict? How often and where do they occur? What exposure levels result in chronic diseases?*

These questions have remained unanswered because even though limits exist on the amounts of some pollutants that can be released into the environment, the United States has never had a system able to track them or link them to human disease.

Once established, the network is expected to help reduce and prevent chronic disease. Aside from establishing a correlation between pollutants

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Project to help track pollutants, risky exposures

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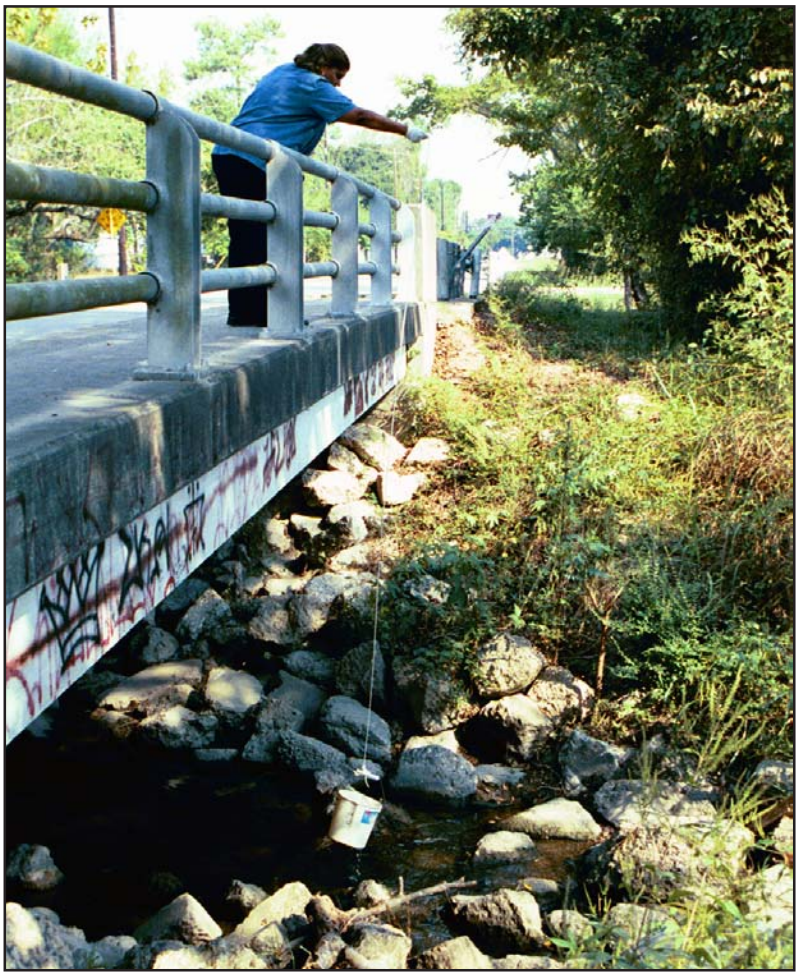
and disease, the network will be able to help identify populations at risk, organize a response to clusters and emerging threats, guide intervention and prevention strategies and educate the public and health community about environmental hazards and exposures.

Chronic diseases are responsible for four of every five deaths annually in the United States, the Pew Environmental Health Commission at Johns Hopkins School of Public Health concluded in its 2000 report *America's Environmental Health Gap: Why the Country Needs a Nationwide Health Tracking Network.* The report found that 100 million people suffer from a chronic disease each year and cost the nation $325 billion in annual health care and lost productivity.

The commission — through its report — was the first to propose the creation of the network, emphasizing the need to mount effective prevention efforts that would cost $275 million a year – less than one-tenth of a percent of the yearly $325 billion tab.

As examples of the environmental health gap, the nation's failure to deal with chronic diseases and their potential links to environmental hazards, the commission noted that:

- more than half the states lack ongoing tracking and monitoring of asthma even though it is a rapidly growing national epidemic,
- most states fail to track developmental disabilities such as autism and mental retardation despite an estimated 50 percent rise nationwide in these disabilities in the last decade and research indicating that 25 percent are related to environmental exposures,
- only four states reported tracking autoimmune diseases such as lupus even though rates for these diseases are rising, and
- less than half the nation's population is covered by birth defect registries even though birth defects are the leading cause of infant mortality in the United States and rates for certain birth defects and related conditions are increasing.



A grant-funded project will identify and locate environmental hazards in Houston and try to link them to chronic diseases.

Houston embodies the ideal location to pilot a regional tracking project since sources of pollution are scattered across the city. In essence, people and pollution sources are close neighbors.

The Health Planning and Evaluation unit in the Director's Office will manage the project. Currently, the unit is working on developing contracts to secure technical support, an analysis of laws surrounding environmental tracking and consulting services on toxicology and environmental hazards. The unit is also working on a contract with an information technology firm to craft a plan to link up electronic systems that store data on diseases, pollutants and environmental monitoring.

Any data systems eventually set up by HDHHS could end up serving as models that other cities can duplicate. For the time being, by participating in the first attempts to answer questions about the causes and prevention of chronic diseases, HDHHS will play a role in helping shed light on the nation's environmental health.

Grant to help reduce lead hazards in 300 homes

Approximately 300 homes with paint responsible for lead poisoning young children will undergo hazard-reduction renovations under a new federal grant and matching local funds awarded to the Houston Department of Health and Human Services (HDHHS).

HDHHS has received notification of approval of a $2.16 million U.S. Department of Housing and Urban Development grant. Bond funds from the city's Department of Housing and Community Development will augment the grant, bringing the total project value up to $3.48 million.

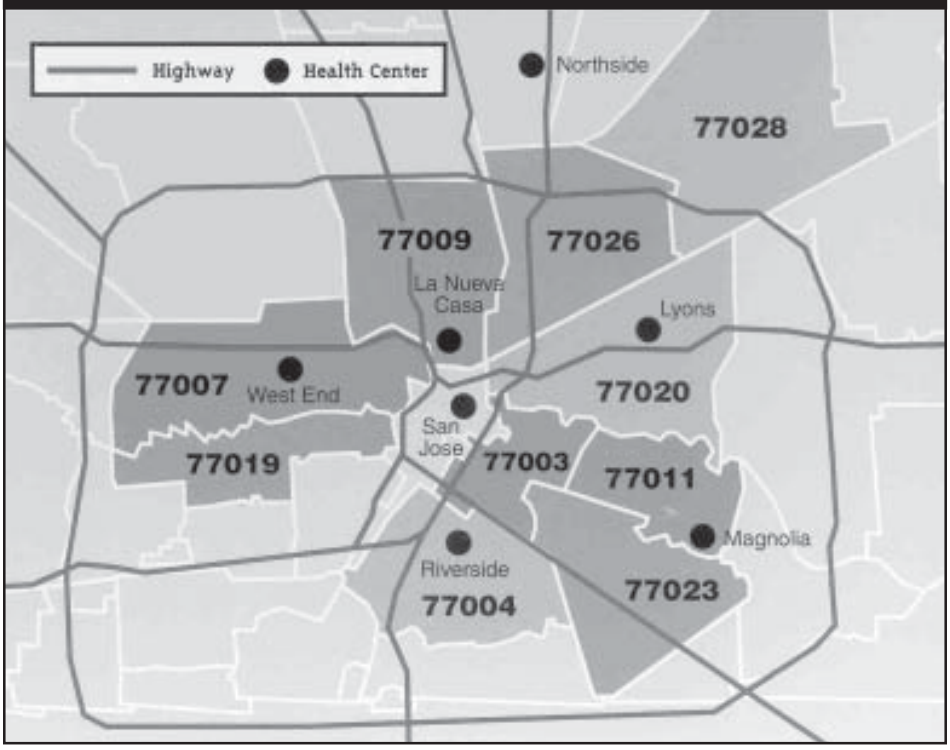
Privately-owned or rental homes confirmed as the source of lead poisoning of low-income children less than six years of age qualify for the renovations as long as they are within Houston city limits. The project, however, will target inner-city neighborhoods, areas more likely to contain older homes with lead-based paint — the most common source of lead exposure in children.

Houston zip codes where children appear to be at much higher risk for lead poisoning are 77003, 77004, 77007, 77009, 77011, 77019, 77020, 77023, 77026 and 77028. They comprise neighborhoods to the west, north, northeast, east and south of downtown.

HDHHS, which will receive funds over a two-year period, expects to begin lead removal from homes in February.

HDHHS' Lead Based Paint Hazard Control Program has renovated 700 Houston homes since 1996 through two previous federal grants. Lead-reduction activities include removal and replacement of contaminated housing components, stabilizing or enclosing painted surfaces and temporarily relocating families during the renovation process to ensure that children are not further lead poisoned. The relocation, provided at no cost to families, takes into consideration each household's school, employment and transportation needs.

High-risk zip codes



Elevated blood lead levels in children can result in learning disabilities, behavioral problems, mental retardation, speech and language handicaps and brain damage. Seizures, coma and death are possible at extremely high blood lead levels.

As lead-based paint in older homes deteriorates, it creates contaminated dust as well as paint chips which can be eaten by young children, especially those between one and three years of age who frequently pick up objects and put them in their mouths. Home renovation or remodeling can disturb lead paint. Also, a young child can easily chew on painted surfaces such as window sills and door frames in a lead-exposed home.

The Centers for Disease Control and Prevention estimates that more than 80 percent of all homes built before 1978 in the United States have lead-based paint in them. Houses built before 1950 pose the greatest hazard to children because they are much more likely to contain lead-based paint than newer homes. The older the house, the more likely it is to contain lead-based paint and a higher concentration of lead in the paint.

The main treatment for lead poisoning is to stop the exposure. Removing the lead from a child's environment helps to ensure a sustained decline in blood-lead levels. In some cases, medications can lower elevated blood-lead levels.

The longer children are exposed to lead, the greater the likelihood that they will sustain damage to their health. Although particularly harmful to the developing brain and nervous system of fetuses and young children, lead can harm virtually every system in the human body. It can damage the kidneys and the reproductive system

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Lead harmful to children

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and cause high blood pressure.

HDHHS screened 6,039 children for lead poisoning in 2001. A total of 2.6 percent of the children screened had blood lead levels equal to or greater than 10 micrograms per deciliter, the lowest level associated with adverse effects on a child.

A blood test is the only method able to determine lead poisoning. Symptoms include headaches, irritability, abdominal pain, vomiting, anemia, weight loss, poor attention span, noticeable learning difficulty, slowed speech development, hyperactivity and muscle aches. Symptoms, however, do not develop in most children, and if so, they usually become apparent several years after the lead poisoning occurred.

Key questions for parents to assess lead poisoning risk

Does your child live in or regularly visit a house or other building built before 1978 with peeling or chipping paint?

Do you reside or does your child visit a caretaker in any of the following zip codes: 77003, 77004, 77007, 77009, 77011, 77019, 77020, 77023, 77026 or 77028?

Does your child have a brother, sister, housemate or playmate now receiving treatment or at one time received treatment for lead poisoning?

Does your child play in areas of bare soil near painted buildings, painted porches or near roads with heavy traffic?

Has there been any paint removal, scraping or renovation work done in or near your home?

Does your child frequently put toys, paint chips or dirt in his or her mouth? Does your child chew on window sills or blinds?

Is anyone in your home exposed to lead at his or her work site? Does the child live near an industry likely to release lead? (radiator repair, construction, paint removal, etc.)

Calendar

FEBRUARY

American Heart Month
American Heart Association
www.americanheart.org

National Children's Dental Health Month
American Dental Association
www.ada.org

Wise Health Consumer Month
American Institute for Preventive Medicine
www.aipm.healthy.net

2 - 8
National Burn Awareness Week
Shriners Burns Hospital
www.shrinershq.org

9 - 15
National Child Passenger Safety Awareness Week
Office of Occupant Protection, National Highway Traffic Safety Administration
www.nhtsa.dot.gov

14
National Condom Day
American Social Health Association
www.ashastd.org

23 - 2
National Eating Disorders Awareness Week
National Eating Disorders Association
www.nationaleatingdisorders.org

MARCH

Save Your Vision Month
American Optometric Association
www.aoa.org

National Kidney Month
National Kidney Foundation
www.kidney.org

National Eye Donor Month
Eye Bank Association of America
www.restoresight.org

National Nutrition Month
American Dietetic Association
www.eatright.org

Workplace Eye Health and Safety Month
Prevent Blindness America
www.preventblindness.org

16 - 22
National Inhalants and Poisons Awareness Week
National Inhalant Prevention Coalition
www.inhalants.org

16 - 22
National Poison Prevention Week
Poison Prevention Week Council
www.poisonprevention.org

24
World Tuberculosis Day
American Association for World Health
www.aawhworldhealth.org

25
American Diabetes Alert Day
American Diabetes Association
www.diabetes.org

Lab's bioterrorism unit formed with CDC funds

In September, the Houston Department of Health and Human Services (HDHHS) received a $694,000 grant from the Centers for Disease Control and Prevention to create a bioterrorism section within the Laboratory.

The funds will be used to hire additional staff for the facility, pay for upgrades to the building and purchase additional equipment and supplies.

The grant will also help lab staff train personnel from clinical labs in 17 area counties on bioterrorism preparedness. The lab staff will teach them what to look for, how to recognize an agent and the appropriate way to send the specimen to the Houston lab.

The lab is one of six in the state considered regional laboratories because of their capacity to handle sophisticated testing such as typing, or grouping organisms in a way that permits distinguishing between different strains, isolating viruses,

serving as a reference laboratory capable of identifying tuberculosis bacteria and tuberculosis-like organisms and performing antibody susceptibility tests and tests most hospital laboratories are unable to do.

The lab is a Level B facility, meaning it forms part of the CDC's laboratory response network and local hospitals can submit specimens for more definitive identification. However, it can perform almost every test conducted at state laboratories, designated as Level C.

Laboratories are usually classified as Level A, B, C, or D. Level A laboratories are those typically found in community hospitals and are able to perform initial testing on all clinical specimens, usually blood or some other body fluid. Public health laboratories are usually Level B; they are valuable for confirming or refuting preliminary test results and can usually perform antimicrobial susceptibility tests on bacteria and viruses. Level C laboratories, which are reference facilities and usually large public health laboratories, can perform more rapid identification tests. Level D laboratories are designed to perform the most sophisticated tests and are located in federal facilities such as the CDC.

Each year the lab conducts more than 700,000 tests to determine everything from daily spore counts, rabies and HIV infections and foodborne illnesses to the safety of the local milk supply.

Funds help expand West Nile virus surveillance

Houston and Harris County became the region of Texas most severely impacted by the potentially deadly West Nile Virus in 2002. The Houston Department of Health and Human Services (HDHHS) expanded surveillance activities to confront the new threat.

The department received a $182,000 grant from the Centers for Disease Control and Prevention, doubling the funds dedicated for surveillance of the virus. The department's Laboratory performed more than 2,500 tests to detect presence of the virus in humans.

Five people died from among the 97 area residents whom the department either confirmed with West Nile Virus or considered probable cases. West Nile virus infection, in severe cases, can develop into encephalitis, inflammation of the brain. Still, less than 1 percent of people bitten by a mosquito with the virus will become infected and get severely ill.

As part of its surveillance activities, the department arranges for courier pick-up of the cerebral spinal fluid and blood samples from local hospitals, tests them for the presence of West Nile virus and provides results in two days. Testing is free to patients and hospitals.

The lab is the only area facility with the ability to test for evidence of West Nile virus infection in people.

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